

## BIOGRAPHICAL SKETCH

**NAME:** Ralph J. Smialowicz

**POSITION TITLE:** Microbiologist

### EDUCATION/TRAINING

Institution	Degree	Year	Field of Study
Seton Hall University	B.S.	1968	Biology
St. John's University	M.S.	1970	Biology
University of North Carolina, Chapel Hill	Ph.D.	1974	Bacteriology & Immunology

### PROFESSIONAL EXPERIENCE:

1989-present ITB/ETD/NHEERL, US EPA, RTP, NC ; 1980 - 1988: Chief, Immunology Section, PTB/HERL, US EPA

1974-1980 Microbiologist, US EPA

### *Adjunct appointments:*

1990-present Associate Professor, Curriculum in Toxicology, School of Public Health, University of North Carolina, Chapel Hill, NC

1998-present Associate Professor, Department of Microbiology, Pathology, and Parasitology, College of Veterinary Medicine, North Carolina State University

### PROFESSIONAL SOCIETIES:

Memberships: American Association of Immunologists; Society of Toxicology

Editorial Boards: Toxicology (1993-present)

### SELECTED AWARDS AND HONORS:

EPA Bronze Medal for participation in the development of pesticide immunotoxicity test guidelines, Office of Pesticide Programs (1999).

### INVITED LECTURES/SYMPOSIA (selected):

"The Immunotoxicology of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin", Immunology Seminar Series, Department of Microbiology, Pathology, and Parasitology, College of Veterinary Medicine, North Carolina State University, Raleigh, N.C. (1999).

"Acute and Persistent Immunotoxicity of Polychlorinated Aromatic Hydrocarbons and Organochlorine Pesticides", Institute of Comparative and Environmental Toxicology., Cornell University (1999)

"The International Collaborative Immunotoxicity Study: Results and Conclusions", International Symposium: Approaches to Risk Assessment of Immunotoxic Effects of Chemicals", Berlin (1999).

"Risk Assessment: Needs of the Risk Assessor", International Symposium: Approaches to Risk Assessment of Immunotoxic Effects of Chemicals, Berlin (1999).

"Effect of Perinatal/Juvenile Exposure to Heptachlor on Adult Immune Function", Hawaii Heptachlor Research and Education Foundation, Poipu, Hawaii (2000).

"The Rat as a Model in Developmental Immunotoxicology", ILSI/HESI Workshop on Developmental Immunotoxicity and Risk Assessment, Washington, DC (2001).

"Review of the Developmental Immunotoxicology Database", NIEHS Sponsored Developmental Immunotoxicology Workshop, Washington, DC (2001).

"Developmental Immunotoxicity in Rats Exposed to Industrial and Agricultural Chemicals", Dept. Micro. & Immun., WV Univ., Morgantown, WV (2001).

"Effects of Xenobiotics on Developmental Immunotoxicology in the Rat.", International Workshop: Children as a Special Subpopulation: Focus on Immunotoxicity, Berlin (2001).

"In Utero & Postnatal Development of the Immune System", Teratology Soc., Scottsdale (2002).

"Developmental Immunotoxicology", SOT CCT Workshop, Non-Clinical Safety Evaluation of Preventive Vaccines: Recent Advances and Regulatory Consideration, Washington, DC (2002).

### ASSISTANCE/LEADERSHIP PROVIDED TO THE SCIENTIFIC COMMUNITY:

IPCS/UNEP/WHO International Collaborative Immunotoxicity Work Group (1986-1998).

Expert peer reviewer of the LLNA, ICCVAM (1998-1999).

Co-Organizer, "Mechanisms of Immunotoxicology" 14<sup>th</sup> Annual Conference (1999).

ILSI, Framework for Assessing Children's Risks: Work Planning Committee (2000-2002).

ILSI/HESI Institute, Developmental Immunotoxicology Work Group (2000-2002).

Co-Organizer/Chair, SOT Symposium, The Developing Immune System: A Sensitive Target for Perturbation by Xenobiotics (2001).

Immunity, Infection and Vaccines Working Group of The National Children's Study (NICHD, NIEHS, CDC, and US EPA (2002-present).

**ASSISTANCE/LEADERSHIP PROVIDED TO THE AGENCY:**

OPTS Workgroup to Develop Immunotoxicity Test Guidelines (1991-1998).

Manager/Author, Chapter 4. Immunotoxicity, EPA Health Assessment Document for 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds (1993-present).

Technical Qualifications Board, NHEERL (1996-2002).

Science Team, ORD Strategy for Research on Risks to Children (1996-2001).

OECD Immunotoxicity Workgroup (1996-present).

ORD Perchlorate Risk Assessment Review Team (1998-present).

ORD Human Health Risk Research Strategy Workgroup (1999).

Children's Health Test Battery Workgroup, American Industrial Health Council (1999).

Chapter Manager, Immunotoxicity of PCBs: NCEA Review of the Immunotoxicology of PCB Congeners and Congener Mixtures (1999-present).

EPA/March of Dimes Critical Windows of Exposure for Children's Health Workgroup (1999).

ORD Multi year Plan, Subobjective 8.2, "Susceptibility" Team (2000-2002).

EPA ORD Goal 4 "Safe Communities" Team (2000-2002).

**PUBLICATIONS (From Jan. 1, 1998 to present, 12 out of a total of 82 publications):**

1. Dayan, A.D., Kuper, F., Madsen, C., Smialowicz, R.J., Smith, E., van Loveren, H., Vos, J.G., and White, K.L. Report of an interlaboratory validation study of assessment of direct immunotoxicity in the rat. *Toxicology* 125:183-201 (1998).
2. Ladics, G.S., Smith, C., Loveless, S.E., Green, J.W., Flaherty, D., Gross, C., Shah, R., Williams, W., and Smialowicz, R.J. Phase two of an interlaboratory evaluation of the quantification of rat splenic lymphocyte subtypes using immunofluorescent staining and flow cytometry. *Toxicology Methods* 8:87-104(1998).
3. Veronesi, B., Williams, W., Smialowicz, R.J., Sailstad, D., Doerfler, D., and Selgrade, M. Neuropeptide denervation alters both the elicitation and induction phases of contact hypersensitivity in mice. *Toxicol. Appl. Pharmacol.* 153:243-249(1998).
4. Gehrs, B.C., Smialowicz, R.J. Persistent suppression of delayed-type hypersensitivity in adult F344 rats after perinatal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxicology* 134:79-88 (1999).
5. Holladay, S.D., Smialowicz, R.J. Development of the murine and human immune system: differential effects of immunotoxicants depend on time of exposure. *Environ. Health Perspect.* 108 (Suppl. 3):463-474 (2000).
6. Dietert, R.R., Etzel, R.A., Chen, D., Halonen, M., Holladay, S.D., Jarabek, A.M., Landreth, K., Peden, D.B., Pinkerton, K., Smialowicz, R.J., and Zoetis, T. Workshop to identify critical windows of exposure for children's health: immune and respiratory systems work group summary. *Environ. Health Perspect.* 108 (Suppl.3):483-490 (2000).
7. Johnson, C.W., Williams, W.C., Copeland, C.B., DeVito, M.J., Smialowicz, R.J. Sensitivity of the SRBC PFC assay vs ELISA for detection of immunosuppression by TCDD and TCDD-like congeners. *Toxicology* 156: 1-11 (2000).
8. Wagner, E., Frank, M.M., Smialowicz, R.J. 2,3,7,8-Tetrachlorodibenzo-p-dioxin and natural immunity: lack of an effect on the complement system in a guinea pig model. *Toxicology* 159: 107-113 (2001).
9. Smialowicz, R.J., Williams, W.C., Copeland, C. B., Harris, M.W., Overstreet, D., Davis, B.J., Chapin, R.E. Effect of perinatal/juvenile heptachlor exposure on adult immune and reproductive system function in rats. *Toxicol. Sci.* 61:164-175 (2001).
10. Moser, V.C., Barone, S., Jr., Smialowicz, R.J., Harris M.W., Davis, B.J., Overstreet, D., Mauney, M., and Chapin, R.E. The effects of perinatal tebuconazole exposure on adult neurological, immunological, and reproductive function in rats. *Toxicol. Sci.* 62: 339-352 (2001).
11. Plitnick, L.M., Loveless, S.E., Ladics, G.S., Holsapple, M., Selgrade, M.J., Sailstad, D.M., and Smialowicz, R.J.

Cytokine profiling for chemical sensitizers: application of the ribonuclease protection assay and effect of dose. *Toxicol. Appl. Pharmacol.* 179: 145-154 (2002).

12. Smialowicz, R.J. The rat as a model in developmental immunotoxicology. *Hum. Exp. Toxicol.* 21: 513-519 (2002).